

a) 1 <section>
 2 <title> Titanic </title>
 5 <section>
 6 <title> Leonardo is swimming </title>
 9 <section>
 10 <title arrow="down"> blub, blub, blub </title>
 15 </section>
 16 </section>
 17 </section>

10

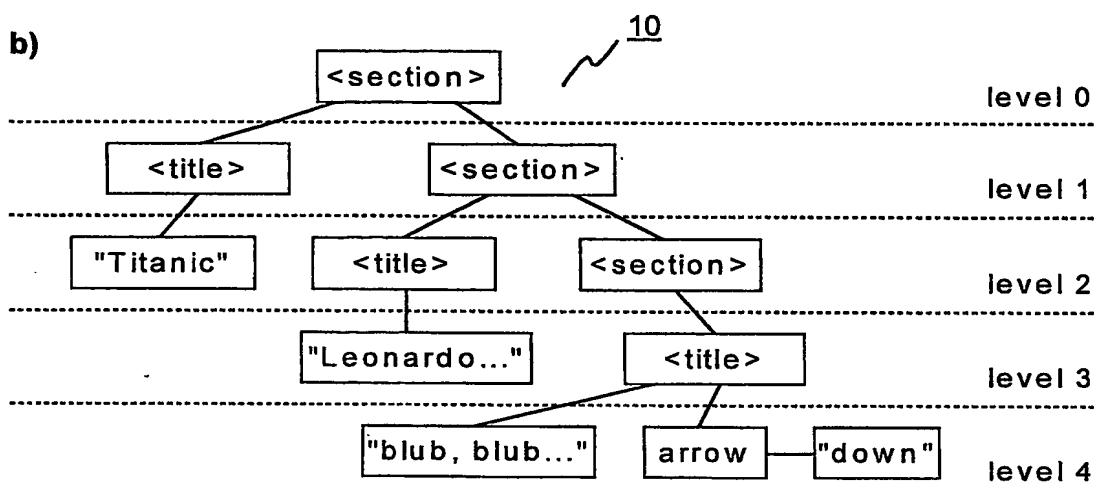


Fig. 1

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Value	Primary Key		Type	Level
	Descr#	Word Pos.		
<section>	123	1	element	0
<title>	123	2	element	1
Titanic	123	3	Text	2
<section>	123	5	element	1
<title>	123	6	element	2
Leonardo is swimming	123	7	Text	3
<section>	123	9	element	2
<title>	123	10	element	3
arrow	123	11	attribute	4
down	123	12	Text	4
blub, blub, blub	123	13	Text	4

Fig. 2

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Value	Primary Key		Type	Level	Next Upper Word Pos.
	Descr#	Word Pos.			
<section>	123	1	element	0	1
<title>	123	2	element	1	1
Titanic	123	3	Text	2	2
<section>	123	5	element	1	1
<title>	123	6	element	2	5
Leonardo is swimming	123	7	Text	3	6
<section>	123	9	element	2	5
<title>	123	10	element	3	9
arrow	123	11	attribute	4	10
down	123	12	Text	4	11
blub, blub, blub	123	13	Text	4	10

Fig. 3

a)

```

1  <section>
2  <title> Titanic </title>
5  <section>
6  <title> 5555 Hello 6666 </title>
11 <section>
12 <title arrow="down"> 333 </title>
17 </section>
18 </section>
19 </section>

```

11

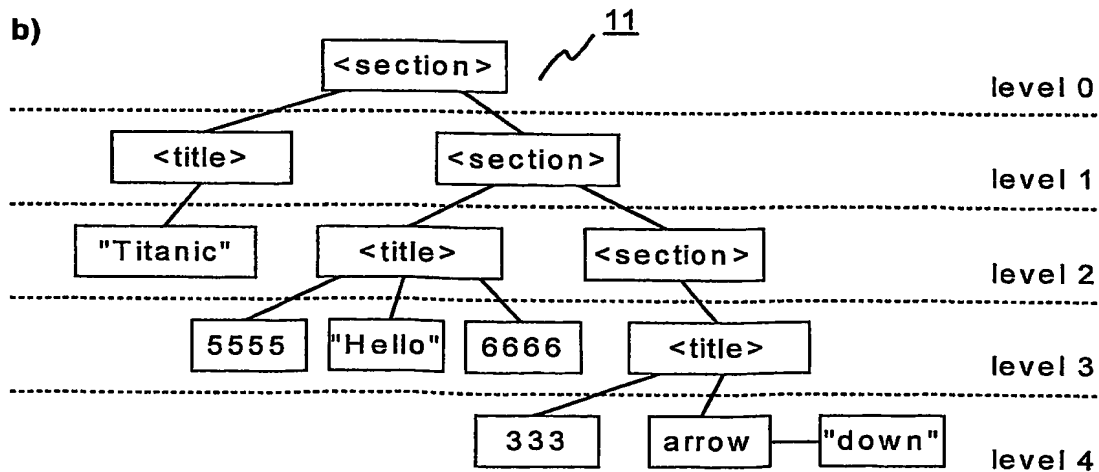


Fig. 4

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Primary Key			
Element	Descr#	Word Pos.	Level
<section>	123	1	0
<title>	123	2	1
<section>	123	5	1
<title>	123	6	2
<section>	123	11	2
<title>	123	12	3

23

Primary Key			
Attribute	Descr#	Word Pos.	Level
arrow	123	13	4

24

Primary Key			
String Value	Descr#	Word Pos.	Level
Titanic	123	3	2
Hello	123	7	3
down	123	14	4

25

Primary Key			
Integer Value	Descr#	Word Pos.	Level
5555	123	7	2
6666	123	9	3
333	123	15	4

Fig. 5

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Primary Key		Secondary Key			
Descr#	Word Pos.	Type	Descr. Key	Level	Next Upper Word Pos.
123	1	Element	1	0	1
123	2	Element	2	1	1
123	3	String	1	2	2
123	5	Element	1	1	1
123	6	Element	2	2	5
123	7	Integer	1	3	6
123	8	String	2	3	6
123	9	Integer	2	3	6
123	11	Element	1	2	5
123	12	Element	2	3	11
123	13	Attribute	1	4	12
123	14	String	3	4	13
123	15	Integer	3	4	12

35

Element	Descr. Key
section	1
title	2

33

String Value	Descr. Key
Titanic	1
Hello	2
down	3

34

Integer Value	Descr. Key
5555	1
6666	2
333	3

32

Attribute	Descr. Key
arrow	1

Fig. 6

```

1 <MetaDataDescriptor
  xmlns="http://www.thmulti.com/MetaDataStream"
  xmlns:link="http://www.thmulti.com/MetaDataStream/LinkDescriptor"
  xmlns:log="http://www.thmulti.com/MetaDataStream/LogEntry"
  xmlns:info="http://www.thmulti.com/MetaDataStream/Info"
  xmlns:xml="http://www.w3.org/XML/1998/namespace">
2
  <log:LogEntry
    UUID="351f687f-fdfa-4050-9c59-bb513bc87845"
    DateTime="2002-02-06T14:41:49+01:00"
    Action="Create" />
4
5
  <link:ContentReference>
    <link:Link>
      <link:LinkingTo>
        <log:LogEntryReference type="UUID"
          href="cc80b1fd-e070-48ad-90c8-82ed5d1526da"/>
        <link:DvrClpiParameter>
          <link:STC_seq>0</link:STC_seq>
          <link:PTS>1319433744</link:PTS>
        </link:DvrClpiParameter>
      </link:LinkingTo>
    </link:Link>
    <link:Origin>
      <log:LogEntryReference type="UUID"
        href="34583cd2-f360-4f0b-b011-885953e20c80" />
    </link:Origin>
  </link:ContentReference>
  <core:Core-MD
    xmlns:core="http://www.thmulti.com/MetaDataStream/CoreMD">
    ...
  </core>
6
</MetaDataDescriptor>

```

Fig. 7

7 <MetaDataStream
 xmlns="http://www.hanover.thmulti.com/research/MetaDataStream"
 xmlns:assi=...>
 2
 <MetaDataDescriptor

 </MetaDataDescriptor>
 1
 <MetaDataDescriptor

 </MetaDataDescriptor>
 <MetaDataDescriptor

 </MetaDataDescriptor>
 :
 <MetaDataDescriptor ...

 </MetaDataDescriptor>
 </MetaDataStream>

Fig. 8

40							
Descr#	Max Level	UUID	Abs. Pos.				
1	5	8aD0sz...	1				
5	4	KThz6u...	16				
12	8	Pou84s...	59				
345	7	U7oksH...	12467				

Abs. Pos.	Descr#	Word Pos.	Type	Descr. Key	Level	Name-space	Next Upper Word Pos.
1	1	1	Element	1	0	0	1
2	1	2	Element	2	1	2	1
15	1	15	Namespace	2	1	-	1
16	5	1	Element	1	0	0	1
58	5	43	Namespace	7	1	-	1
59	12	1	Element	1	0	0	1
12467	345	1	Element	1	0	0	1
12628	345	162	Namespace	45	1	-	1

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Fig. 9